

# CITY of BRANSON



## WATER Quality Report 2016

### Utilities Mission Statement

The Utilities Department is committed in providing professional customer service to those visiting the area and those who make this community home. We will consistently provide safe public drinking water for our visitors and citizens. Our wastewater collection and treatment systems will be operated to produce the highest quality effluent possible in order to protect our lakes and streams for the enjoyment of future generations.



### Community Participation

Your input on water quality is always welcomed. The City Council meets every 2nd and 4th Tuesday of the month at 7:00 p.m. in the Council Chambers at City Hall, located at 110 W. Maddux Street #210. Please feel free to participate in these meetings.

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### Why are there contaminants in my water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Contaminants that may be present in source water include:

- A. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B. Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
- C. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- D. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- E. Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Department of Natural Resources prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Department of Health regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### Is our water system meeting other rules that govern our operations?

The Missouri Department of Natural Resources regulates our water system and requires us to test our water on a regular basis to ensure its safety. Our system has been assigned the identification number MO5010096 for the purposes of tracking our test results. Last year, we tested for a variety of contaminants. The detectable results of these tests are on the following pages of this report. Any violations of state requirements or standards will be further explained later in this report.

### How might I become actively involved?

If you would like to observe the decision-making process that affects drinking water quality or if you have any further questions about your drinking water report, please call us at 417-243-2714 to inquire about scheduled meetings or contact persons.

### Do I need to take any special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

### Special Lead and Copper Notice:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. BRANSON is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at <http://water.epa.gov/drink/info/lead/index.cfm>.



What Is The Source Of My Drinking Water?



The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

The City of Branson has Two Surface Water Treatment Plants and Six Ground Water Wells. In the year 2016, 73% of the treated water that serves the City of Branson came from the treatment plants which pump water from Lake Taneycomo. The City treated 1.249 billion gallons of water in the year 2016. During peak summer months the average water treated per day is 4.451 million gallons and in the winter months it is 2.725 million gallons.

Source Water Assessment

The Department of Natural Resources conducted a source water assessment to determine the susceptibility of our water source to potential contaminants. This process involved the establishment of source water area delineations for each well or surface water intake and then a contaminant inventory was performed within those delineated areas to assess potential threats to each source. Assessment maps and summary information sheets are available on the internet at

<http://maproom.missouri.edu/swipmaps/pwssid.htm>.

To access the maps for your water system you will need the State-assigned identification code, **MO5010096**. The Source Water Inventory Project maps and information sheets provide a foundation upon which a more comprehensive source water protection plan can be developed.

WATER QUALITY RESULTS FOR 2016

VIOLATIONS AND HEALTH EFFECTS INFORMATION									
During the 2016 calendar year, we had the below noted violation(s) of drinking water regulations.									
COMPLIANCE PERIOD			ANALYTE				TYPE		
No Violations Occurred in the Calendar Year of 2016									
REGULATED CONTAMINANTS	COLLECTION DATE	HIGHEST VALUE	RANGE OF SAMPLED RESULT(S) (LOW-HIGH)		UNIT	MCL	MCLG	TYPICAL SOURCE	
BARIUM	3/9/2016	0.0306	0.0306		ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	
CHROMIUM	3/9/2016	1.74	1.74		ppb	100	100	Discharge from steel and pulp mills	
FLOURIDE	3/9/2016	0.73	0.73		ppm	4	4	Natural deposits; Water additive which promotes strong teeth	
NITRATE-NITRATE	3/28/2016	0.544	0 - 0.54		ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	
DISINFECTION BYPRODUCTS	SAMPLE POINT	MONITORING PERIOD	HIGHEST LRAA	RANGE OF SAMPLED RESULT(S) (LOW-HIGH)		UNIT	MCL	MCLG	TYPICAL SOURCE
(HAA5)	DBPDUAL-01	2016	36	22.7 - 45.9		ppb	60	0	Byproduct of drinking water disinfection
(HAA5)	DBPDUAL-02	2016	32	13.4 - 34.7		ppb	60	0	Byproduct of drinking water disinfection
TTHM	DBPDUAL-01	2016	58	43.9 - 65		ppb	80	0	Byproduct of drinking water disinfection
TTHM	DBPDUAL-02	2016	49	17.2 - 41.6		ppb	80	0	Byproduct of drinking water disinfection
TOTAL ORGANIC CARBON	COLLECTION DATE	HIGHEST VALUE	RANGE OF SAMPLED RESULTS		UNIT	TT	TYPICAL SOURCE		
CARBON, TOTAL	8/10/2016	1.45	1.18 - 1.45		MG/L	0	Naturally present in the environment		
LEAD AND COPPER	DATE	90TH PERCENTILE	RANGE OF SAMPLED RESULTS (LOW-HIGH)		UNIT	AL	Sites Over AL	TYPICAL SOURCE	
COPPER	2013 - 2015	0.203	0.022 - 1.98		ppm	1.3	1	Corrosion of household plumbing systems	
LEAD	2013 - 2015	5.21	1.07 - 33.6		ppb	15	1	Corrosion of household plumbing systems	
RADIONUCLIDES		COLLECTION DATE	HIGHEST VALUE	RANGE OF SAMPLED RESULTS		UNIT	MCL	MCLG	TYPICAL SOURCE
COMBINED RADIUM (-226 & -228)		1/26/2016	2.9	2.9		pCi/l	5		Erosion of natural deposits
GROSS ALPHA PARTICLE ACTIVITY		1/26/2016	5.5	5.5		pCi/l	15		Erosion of natural deposits
RADIUM-226		1/26/2016	1.5	1.5		pCi/l	5	0	
RADUIM-228		1/26/2016	1.4	1.4		pCi/l	5	0	
TURBIDITY									
Turbidity is a measure of cloudiness of water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system.									
PERCENTAGE OF SAMPLES IN COMPLIANCE WITH STD		MONTHS OCCURRED	MONITORING VIOLATION	HIGHEST SINGLE MEASUREMENT		MONTH	SOURCES		LEVEL COMPLIANCE
100		11	NO	0.26		APR	SOIL RUNOFF		YES
100		10	NO	0.12		MAY	SOIL RUNOFF		YES
MICROBIOLOGICAL	RESULT			MCL		MCLG		TYPICAL SOURCE	
COLIFORM (TCR)	In the month of August, 2 sample(s) returned as positive			MCL: Systems that collect less than 40 samples per month - No more than 1 positive monthly sample		0		Naturally present in the environment	

Terms & Abbreviations

**Population:** 11,431. This is the equivalent residential population served including non-bill paying customers.

**MCLG:** Maximum Contaminant Level Goal, or the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**MCL:** Maximum Contaminant Level, or the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**AL:** Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

**TT:** Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

**90th percentile:** For Lead and Copper testing, 10% of test results are above this level and 90% are below this level.

**Level Found:** Is the average of all test results for a particular contaminant.

**Range of Results:** Shows the lowest and highest levels found during a testing period, if only one sample was taken, then this number equals the Highest Value.

**RAA:** Running Annual Average, or the average of sample analytical results for samples taken during the previous four calendar quarters.

**TTHM:** Total Trihalomethanes (chloroform, bromodichloromethane, dibromochloromethane, and bromoform) as a group.

**HAA5:** Haloacetic Acids (mono-, di- and tri-chloroacetic acid, and mono- and di-bromoacetic acid) as a group.

**ppb:** parts per billion or micrograms per liter.

**ppm:** parts per million or milligrams per liter.

**pCi/l:** Picocuries per liter, Unit of measure for radioactive concentrations.

**NTU:** Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.

**ND:** not detectable at testing limits.

*The state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Records with a sample year more than one year old are still considered representative.*

*This report is intended to provide you with important information about your drinking water and the efforts made to provide safe drinking water. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.*

AMAZING FACTS!



1. About 6,800 gallons of water is required to grow a day’s food for a family of 4.
2. An acre of corn will give off 4,000 gallons of water per day in evaporation.
3. Human bones are 25% water.
4. It takes 120 gallons of water to produce one egg.
5. Two-thirds of the water used at home is used in the bathroom.
6. You should drink enough water to equal 1/2 your body weight in ounces per day, if you weigh 200 lbs. drink 100 oz.
7. It takes 1,850 gallons of water to refine one barrel of crude oil.
8. One gallon of gasoline can contaminate approximately 750,000 gallons of water.
9. The two largest selling brands of bottled water is treated tap water packaged by the two biggest cola companies.
10. Bottled water can be up to 1,000 times more expensive than tap water and it may not be as safe.

Water Information Produced By Esp Water Products Water Facts